

## PATENT COOPERATION TREATY

**PCT**INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

REC'D 02 AUG 2005
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Applicant's or agent's file reference PCT03111	FOR FURTHER ACTION      See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/KR2003/002747</b>	International filing date (day/month/year) <b>15 DECEMBER 2003 (15.12.2003)</b>	Priority date (day/month/year) 16 JANUARY 2003 (16.01.2003)
International Patent Classification (IPC) or national classification and IPC <b>IPC7 F16K 37/00</b>		
Applicant <b>LEE Chul Jae et al</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of         4       sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand <b>15 NOVEMBER 2004 (15.11.2004)</b>	Date of completion of this report <b>18 JULY 2005 (18.07.2005)</b>
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer <b>LEE, Jin Hyung</b> Telephone No. 82-42-481-5462



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR2003/002747

## I. Basis of the report

1. With regard to the elements of the international application:<sup>\*</sup> the international application as originally filed the description:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_ the claims:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_ the drawings:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_ the sequence listing part of the description:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international applications as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4.  The amendments have resulted in the cancellation of: the description, pages \_\_\_\_\_ the claims, Nos. \_\_\_\_\_ the drawings, sheets \_\_\_\_\_5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).<sup>\*\*</sup>

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed," and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	<u>2, 3, 5-11</u>	YES
	Claims	<u>1, 4</u>	NO
Inventive step (IS)	Claims	<u>2, 3, 5-11</u>	YES
	Claims	<u>1, 4</u>	NO
Industrial applicability (IA)	Claims	<u>1-11</u>	YES
	Claims	<u>NONE</u>	NO

**2. Citations and explanations (Rule 70.7)**

Reference is made to the following documents:

D1: US 5,171,429 A (15 December 1992)

D2: US 5,491,617 A (13 February 1996)

D3: KR 2000-24110 A (6 May 2000)

D4: JP 02-286987 A (27 November 1990) (not cited in the ISR)

**Novelty and Inventive Step**

D4 is the closest prior art to claims 1 and 4 of the present application.

Claim 1 relates to a tap water temperature sensing type of light emitting apparatus, comprising a power source, a control unit, a sensing unit and a light emitting unit. D1 relates to a hot and cold water mixing valve and faucet comprising an electric cord, a water pressure switch, a temperature sensor and a light source. The power source, the control unit, the sensing unit and the light emitting unit according to claim 1 are respectively equivalent to the electric cord, the water pressure switch, the temperature sensor, and the light source according to D1.

Claim 4 relates to the light emitting apparatus of claim 1, wherein the light emitting unit comprises a light transmitting unit made of optical fiber. Said light transmitting unit is equivalent to the light guiding means of D4.

Therefore, claims 1 and 4 do not meet the requirements of PCT Article 33(2) and 33(3).

The subject matter of claims 2, 3 and 5-11 is not described in D4 nor is it rendered obvious. Accordingly, a person skilled in the art can readily not invent the light emitting apparatus claimed in claims 2, 3 and 5-11. Therefore, claims 2, 3 and 5-11 meet the requirements of PCT Article 33(2) and 33(3).

(Continued on supplemental sheet)

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

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**Supplemental Box**  
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Box V.

**Industrial Applicability**

The present invention which enables a user to visually observe the water temperature can be usefully used. Therefore, claims 1-11 meet the requirement of PCT Article 33(4).

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